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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,968	10/21/2003	Antoine Paris	454.004	4464
47888	7590	11/01/2005		
HEDMAN & COSTIGAN P.C. 1185 AVENUE OF THE AMERICAS NEW YORK, NY 10036			EXAMINER THERKORN, ERNEST G	
			ART UNIT	PAPER NUMBER
			1723	
DATE MAILED: 11/01/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/689,968

Applicant(s)

PARIS ET AL.

Examiner

Ernest G. Therkorn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-10 are rejected under 35 U.S.C. 102(B) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971). The claims are considered to read on each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971). However, if a difference exists between the claims and each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971), it would reside in optimizing the steps of each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971). It would have been obvious to optimize the steps of each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) to enhance separation.

Claims 1 and 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No.

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4,120,971) in view of Lihme (U.S. Patent No. 6,620,326). At best, the claims differ from each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) in reciting use of an expanded bed. Lihme (U.S. Patent No. 6,620,326) (column 1, lines 30-39 and column 8, lines 30-37) discloses use of an expanded bed reduces time and expenses for a lot of equipment and purifies a larger quantity of substance in each batch. It would have been obvious to use an expanded bed in each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) because Lihme (U.S. Patent No. 6,620,326) (column 1, lines 30-39 and column 8, lines 30-37) discloses use of an expanded bed reduces time and expenses for a lot of equipment and purifies a larger quantity of substance in each batch.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) alone or each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) in view of Lihme (U.S. Patent No. 6,620,326) as applied to claims 1 and 3-10 above, and further in view of Halstrom (U.S. Patent No. 4,267,344) and Guddal (U.S. Patent No. 4,178,294). At best, the claim differs from each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) alone or each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) in view of Lihme (U.S. Patent No. 6,620,326) in reciting use of an aromatic hydrocarbon. Halstrom (U.S. Patent No. 4,267,344) (column 12, lines 57-59) discloses that aromatic hydrocarbons are good solvents for N-carboxyanhydrides. Guddal (U.S. Patent No. 4,178,294) (column 2, lines 52-54) discloses that N-carboxyanhydrides are conventionally

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chromatographed in benzene, an aromatic hydrocarbon, and silica gel. It would have been obvious to use aromatic hydrocarbons in each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) alone or each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) in view of Lihme (U.S. Patent No. 6,620,326) because Halstrom (U.S. Patent No. 4,267,344) (column 12, lines 57-59) discloses that aromatic hydrocarbons are good solvents for N-carboxyanhydrides and Guddal (U.S. Patent No. 4,178,294) (column 2, lines 52-54) discloses that N-carboxyanhydrides are conventionally chromatographed in benzene, an aromatic hydrocarbon, and silica gel.

Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) alone or each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) in view of Lihme (U.S. Patent No. 6,620,326) as applied to claims 1 and 3-10 above, and further in view of Ito (U.S. Patent No. 5,449,461) and Horwitz (U.S. Patent No. 5,368,736). At best, the claims differ from each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) alone or each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) in view of Lihme (U.S. Patent No. 6,620,326) in reciting use of an acid. Ito (U.S. Patent No. 5,449,461) (column 3, lines 19-28) discloses that use of acid to create a pH refining zone produces a train of highly concentrated rectangular solute peaks. Horwitz (U.S. Patent No. 5,368,736) (column 3, lines 18-21; column 11, lines 14-19; and column 12, lines 11-17) discloses acidifying enhances retention. It would have been obvious to use an acid in

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each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) alone or each of Halstrom (U.S. Patent No. 4,267,344) and Saari (U.S. Patent No. 4,120,971) in view of Lihme (U.S. Patent No. 6,620,326) because Ito (U.S. Patent No. 5,449,461) (column 3, lines 19-28) discloses that use of acid to create a pH refining zone produces a train of highly concentrated rectangular solute peaks and Horwitz (U.S. Patent No. 5,368,736) (column 3, lines 18-21; column 11, lines 14-19; and column 12, lines 11-17) discloses acidifying enhances retention.

The remarks urge that Halstrom (U.S. Patent No. 4,267,344)'s chloroform is not nonpolar. However, Kitaguchi on column 17, line 49 evidences chloroform is nonpolar. Bade (U.S. Patent No. 6,150,550) on column 9, lines 15-19 evidences chloroform is nonpolar.

The remarks urge that Saari (U.S. Patent No. 4,120,971)'s ethyl acetate is not nonpolar. However, Conner (U.S. Patent No. 6,528,528) on column 17, lines 31-32 evidences that ethyl acetate is nonpolar. Eichinger (U.S. Patent No. 6,482,996) on column 1, lines 36-37 evidences that ethyl acetate is nonpolar.

The remarks urge patentability based upon the amount of silica with respect to the weight of N-carboxyanhydrides. However, Lihme (U.S. Patent No. 6,620,326) on column 8, lines 29-32 discloses that expanded beds allow a larger quantity of substance in each batch. As such, the recited ratio of silica to N-carboxyanhydrides would be obvious.

The remarks urge that impurities and not N-carboxyanhydrides are absorbed on his silica in his invention. However, this limitation does not appear to be claimed.

The remarks urge that applicants' N-carboxyanhydrides are brought into contact with silica and passed through a filter. However, these limitations do not appear to be claimed.

The remarks urge that his invention is not directed to chromatography. However, the claims are sufficiently broad to read on chromatography.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (571) 272-1149. The official fax number is 571-273-8300.

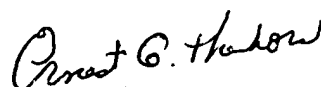
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Ernest G. Therkorn".

**Ernest G. Therkorn**  
**Primary Examiner**  
**Art Unit 1723**

EGT

October 27, 2005